

REMARKS

Claims 1-3 are currently pending in the application and have been amended. Therefore, claims 1-3 are presented for reconsideration and further examination in view of the following remarks.

In the outstanding Office Action, claim 2 was objected to because of informalities; and claims 1-3 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,689,559 to Park.

By this Response claims 1-3 have been amended and the prior art rejection is traversed. Arguments in support thereof are provided.

Specifically, claim 2 has been amended to overcome the objection; claim 1 has been amended for clarity; and claim 3 has been amended to delete a feature. Support for the amendment to the preamble of claim 1 can be found for example, on page 8, paragraph beginning on line 12.

It is further respectfully submitted that the within amendments introduce no new matter within the meaning of 35 U.S.C. §132.

Objection

The Examiner objected to claim 2 because of informalities. In particular, claim 2 was objected to because in the “decryption block” paragraph, the word “work” should be changed to --word--.

In response, Applicant has amended claim 2 as requested by the Examiner. Therefore, Applicant respectfully requests withdrawal of the objection.

In addition, Applicant has amended the “wherein” clause to recite --after every reproduction-- [emphasis added]. Support for this feature can be found for example, on page 8, paragraph beginning on line 32 of the specification of this application.

Rejection under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-3 as being anticipated by Park. Although the features recited in the claims of the present invention are different from the Park reference, Applicant amends claims 1-3 to more clearly point out the feature of the present invention. Reconsideration and withdrawal of the rejection is respectfully requested.

The test for anticipation under section 102 is whether each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131. The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

It is respectfully submitted that Park fails to disclose each and every element as set forth in amended independent claims 1 and 2.

Independent claim 1 of the present invention recites *inter alia*:

“an encryption block generating a first control word based on an allowable number of reproductions specified by the digital data reproduction device and applying a one-way function to the first control word to produce the allowable number of reproductions to generate a second control word.”

Independent claim 2 of the present invention recites *inter alia*:

“a reproduction unit reproducing the first digital data generated by said de-scrambler,
wherein, after every reproduction by said reproduction unit, said decryption block writes a third control word $CW_{(k-1)}$ back to said recording media, said third control word $CW_{(k-1)}$ being generated by applying the one-way function to the first control word CW_k once, and wherein, if the first control word CW_k received from the recording media equals the second control word CW_0 , the de-scrambling by said de-scrambler and the reproduction by said reproduction unit are inhibited.” [emphasis added]

A feature of the present invention resides in a master digital data creation device for creating master digital data of which the number of reproductions is limited. Another feature of the present invention is a digital data reproduction device for reproducing digital data that is created to include reproduction number limitation information by the master digital data creation device. See for

example, specification at page 4, paragraph beginning on line 9, and page 5, paragraphs beginning on lines 9 and 33, respectively.

Park discloses a copy prevention method and apparatus of a digital magnetic recording/reproducing system. In contrast to the present invention, processing in Park occurs when digital data such as audio and video bit strips are copied from a source recording/reproduction system to a destination recording/reproduction system. The processing is executed in the destination recording/reproduction system in order to manage the copy generation of the digital data and accordingly prevent an illegal copy. See for example, claims 1 and 20.

Specifically, in Park, a marker including copy prevention CP information for preventing the illegal copy and a control word CW for scrambling and descrambling is encrypted. Column 5, lines 12-16. Further, audio and video bit strips are encoded and scrambled with the control word CW. Then the encrypted marker and the scrambled data are multiplexed. Column 4, lines 37-48.

In Park, upon performing a copy of the audio and video bit strips, the encrypted marker and the scrambled audio and video bit strips are transmitted to a destination. Then, at the destination, the encrypted marker is decrypted. *Id.* at lines 49-54. Here, the CP information included in the decrypted marker includes the allowable generational field and the current generational field, and whether the copy is permitted or not is determined based on data in the two fields. Column 5, lines 21-52. If the copy is permitted, the scrambled audio and video bit strips are descrambled with the control word CW included in the decrypted marker, and the

marker is updated in such a manner that the current generation of the current generational field is augmented by one. Column 6, lines 34-40.

In short, Park does not disclose generating a first control word based on an allowable number of reproductions specified by the digital data reproduction device as recited in claim 1 of the present invention and generating a first control word based on a specified allowable number of reproductions as recited in claim 2 of the present invention. Park, at best, discloses a copy prevention method and apparatus.

In contrast, claims 1 and 2 of the present invention propose a reproduction apparatus that limits the number of allowable reproductions.

As described in detail above, the reproduction management apparatus that generates a control word based on an allowable number of reproductions and applies a one-way function to that control word to generate another control word according to claims 1 and 2 of the present invention is quite different from the copy prevention method in Park.

In Park, the copy generation management method uses a control word for scrambling/descrambling to insert a marker that is analyzed to determine whether a copy is permitted and the control word is detected. Column 4, lines 49-54. "In order to inhibit the copy, the control word is destructed or is not output to block the reproduction after performing the copy." Column 6, lines 6-11.

According to the copy generation management of Park, it appears that one generation copy is permitted from the original data, but no copy is permitted from the copied data obtained by the one generation copy. As is apparent from this method, the copy generation management

in Park is clearly different from the reproduction management according to claims 1 and 2 of the present application since, in the present invention, copying of data is permitted until an allowable number of reproductions is reached.

Further, a feature recited in claim 3 of the present invention includes a reproduction device that outputs at least one of its allowable number of reproductions to another reproduction device, which is not derived from the method of copy generation management in Park.

In summary, Park fails to teach or suggest that a first control word is generated based on an allowable number of reproductions, and a second control word for scrambling digital data that is generated by applying a one-way function to the first control word to produce the allowable number of reproductions.

Therefore, Park fails to disclose each and every element of the present invention as recited in claims 1 and 2 of the present invention. It is therefore respectfully requested that the rejection of independent claims 1 and 2 under 35 USC § 102(b) be withdrawn.

It is also submitted that the rejection of dependent claim 3 under 35 USC § 102(b) should be withdrawn *inter alia*, as it depends on claim 2, and for at least similar reasons discussed in detail above with reference to claim 2.

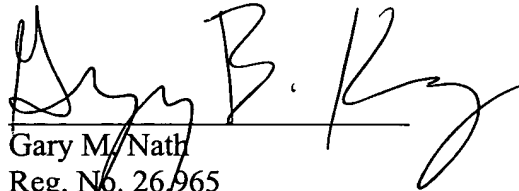
Applicant respectfully submits that the claims as presently presented patentably define over Park taken alone or in combination.

CONCLUSION

In light of the foregoing, Applicant submits that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant respectfully requests that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application. Favorable action with an early allowance of the claims is earnestly solicited.

Respectfully submitted,

NATH & ASSOCIATES PLLC

A handwritten signature in dark ink, appearing to read "Gary M. Nath", is written over a horizontal line.

Gary M. Nath
Reg. No. 26,965
Gregory B. Kang
Reg. No. 45,273
Teresa M. Arroyo
Reg. No. 50,015
Customer No. 20529

December 3, 2004

NATH & ASSOCIATES PLLC
1030 15th Street, N.W.
6th Floor
Washington, D.C. 20005
Tel: (202) 775-8383
Fax: (202) 775-8396